

the Danforth-Inouye Bill (S.1086), the Brooks-Dingell Bill (HR.3626) and Markey-Fields (HR. 3636). Sample provisions:

- allowing RBOC entry into interLATA service;
  - allowing RHCs to acquire CATV networks out of region;
  - opening up the local loop to competition for telephony; and
  - allowing RHCs to own and offer video services and programming.
- State Regulation--Most states have begun moving to incentive-based and more competitive-oriented regulation. Moreover, we suspect that federal regulation will be increasingly proactive about preempting state regulation that is viewed as anti-competitive. One of the most important states is California, which has committed to being proactive about the introduction of competition as a way of rapidly improving the state's competitive economic opportunities and growth.

*Additional Information Available Upon Request*

*Pacific Telesis Corporation stock is optionable.*

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September 28, 1993

### U S WEST, INC. (NYSE: USW)

*A Well-Positioned Strategy For The Coming Decade*

Price 9/28/93	Analyst Stock Rating	52-Week Price Range	EPS (FY: Dec.)			Cal. Yr. P/E		Indicated	
			1992A	1993E	1994E	1993E	1994E	Dividend	Yield
48 5/8	2	49 - 35	\$2.85	\$2.94	\$3.06	16.5x	15.9x	\$2.14	4.4%
Shares Outstanding: 416.4 million			DJIA: 3566.02						
Market Value of Common: \$20.2 billion			S&P 500: 461.53						
Average Daily Volume: 650,700 shares			Est. 3-5 Year Growth Rate: 6%						
Estimated Float: 414.0 million shares			HQ: Englewood, CO						

#### INVESTMENT CONCLUSION: BUY

We previously introduced coverage of U S WEST with a "buy" rating. We believe U S WEST should be a core holding in telecommunications for investors seeking a balance of long-term growth and current income with moderate risk.

Over the next several years, we expect U S WEST shares to outperform the stocks of other Regional Holding Companies (RHCs) because--

- The successful execution of U S WEST's strategy to cut costs, retain customers and develop new revenue sources (such as Personal Communication Services [PCS] and video to the home) could result in stronger cash flow growth and multiple expansion than those of the other RHCs.
- New competitors are likely to find the Company's less densely populated and conservatively regulated operating territory more expensive and time-consuming to penetrate than those of the other RHCs.
- Although these advantages should justify a premium valuation, these shares sell in line with, or at a discount to, the stocks of the other RHCs.



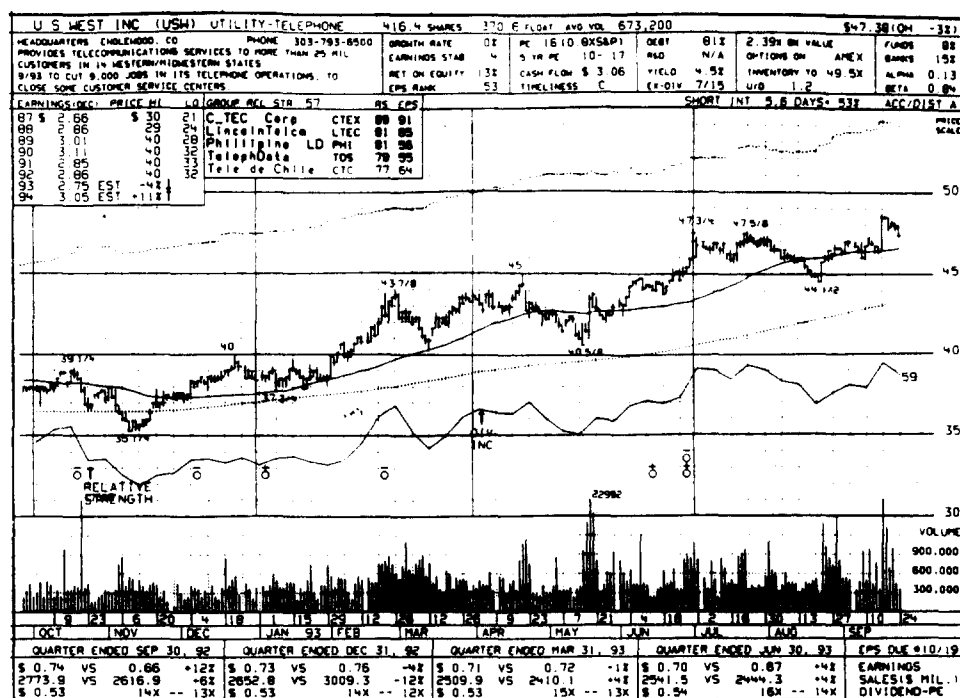


Chart Courtesy of William O'Neil & Co.  
September 24, 1993

**EARNINGS PER SHARE (FY: DEC.)**

	1990A	Y/Y	1991A	Y/Y	1992A	Y/Y	1993E	Y/Y	1994E	Y/Y
1Q	NA	CHG	NA	CHG	NA	CHG	NA	CHG	NA	CHG
2Q	NA	CHG	NA	CHG	NA	CHG	NA	CHG	NA	CHG
3Q	NA	CHG	NA	CHG	NA	CHG	NA	CHG	NA	CHG
4Q	NA	CHG	NA	CHG	NA	CHG	NA	CHG	NA	CHG
FY	\$3.38	CHG	\$2.85	CHG	\$2.85	CHG	\$2.94	CHG	\$3.08	CHG

**ANNUAL FINANCIAL DATA**  
(\$ millions)

	1990A	1991A	1992A	1993E	1994E
Total Revenues	\$9,957.3	\$10,577.2	\$10,281.1	\$10,285.8	\$10,985.5
Operating Income	\$2,433.0	\$2,459.2	\$2,404.4	\$2,230.6	\$2,530.2
Operating Cash Flow	\$4,277.9	\$4,335.3	\$4,294.5	\$4,224.5	\$4,528.2
Operating Margin	24.4%	23.3%	23.4%	21.7%	23.8%
Pretax Margin	17.7%	7.0%	16.7%	15.6%	18.0%

**FINANCIAL POSITION AS OF (6/30/93)**  
(\$ millions)

Total Assets	\$23,774.3
Working Capital	(\$419.1)
Long-Term Debt (LTD)	\$5,922.0
LTD/Tot. Capitalization	41%
Operating Cash Flow/LTD	73%
Current Ratio	0.9:1.0
Shareholders' Equity	\$8,396.5

**SOURCES OF REVENUE**

	1992A	1993E
Local Service	36%	37%
Interstate Access	20%	20%
Intrastate Access	7%	7%
Long Distance Network	14%	13%
Other	24%	23%
Total	100%	100%

**MEASURES OF VALUE**

Price:	\$48.63
Book Value Per Share (6/30/93)	\$21.64
Price-to-Book Value	2.4 x
P/E CY 1993E/3-5 Yr. Est. Growth Rate	276 %
Market Cap./FY 1993 Est. Revenue	2.0 x
P/E-to-S&P 500 P/E Calendar Year 1993E	0.9 x
P/E-to-S&P 500 P/E Calendar Year 1994E	1.0 x
4-Year P/E Ratio Range	17 - 10 x

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## INVESTMENT THESIS

### Company Background

U S WEST, Inc., is a large, diversified, global communications company focused primarily on

- communications;
- information services; and
- marketing services.

U S WEST is one of the eight largest (in terms of revenues) Regional Telecommunications Holding Companies (RHCs) in the U.S. (see Figure 1).

Its 14-state region in the western U.S. is among the most sparsely populated and geographically harsh regions in the U.S. (see Figure 2). Despite this, U S WEST has demonstrated revenue and earnings growth comparable to that of the other RHCs.

Management believes the future telecommunication industry in the U.S. is likely to be highly competitive, and as a result, is focusing on three key objectives that we expound on in our report:

- retaining the customers;
- continued cost reduction; and
- developing new sources of revenues.

Headquartered in Denver, Colorado, U S WEST currently has four major industry groups:

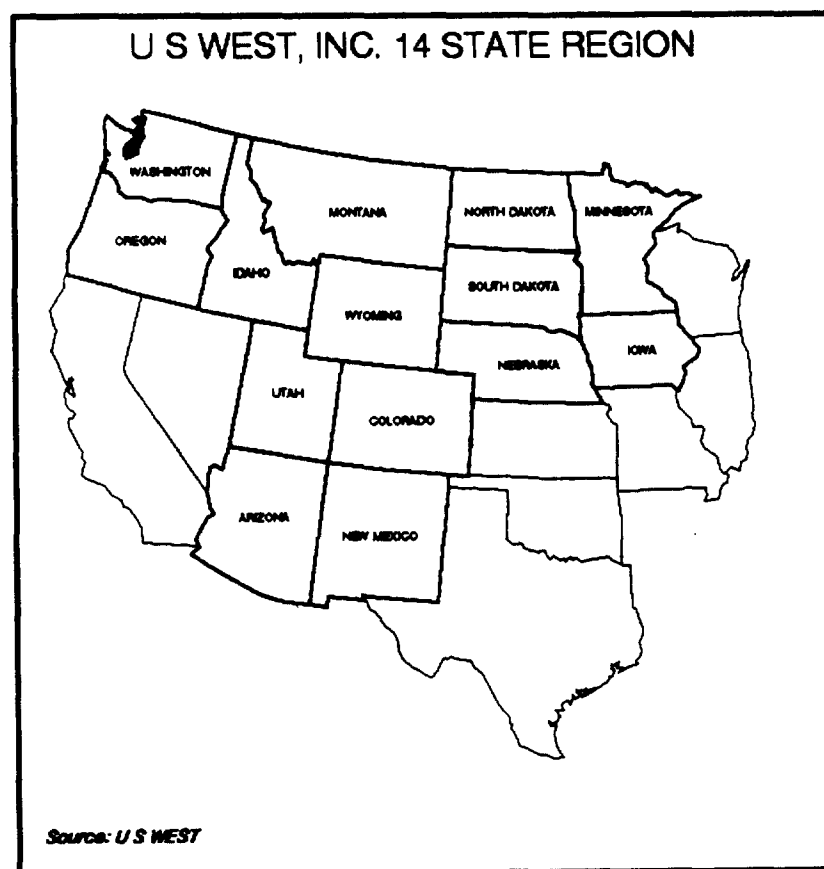
- U S WEST Communications Group--provides Local Exchange Carrier (LEC) services in U S WEST's 14-state western U.S. region;
- U S WEST International and Business Development Group--provides support and development to U S WEST's international and domestic investments;
- U S WEST New Vector Group--offers wireless communications services, such as paging and cellular in a variety of U.S. domestic markets.
- U S WEST Marketing Resources Group--publishes telephone directories and offers other marketing services nationwide; and
- U S WEST Multimedia Communications Group--will oversee the Time Warner Entertainment investment and other out-of-region multimedia applications.

Figure 1

U S WEST, INC. 1992 Revenues (in millions)		
GTE	GTE	\$19,983.7
BellSouth	BLS	\$15,201.6
NYNEX	NYN	\$13,155.0
Bell Atlantic	BEL	\$12,647.0
Ameritech	AIT	\$11,153.0
<u>US WEST</u>	<u>USW</u>	<u>\$10,281.0</u>
Southwestern Bell	SBC	\$10,015.4
Pacific Telesis	PAC	\$9,935.0

Source: Alex. Brown & Sons

Figure 2



### Investment Theme

We expect U S WEST to outperform the other RHCs by protecting its existing customer base from inroads by new competitors and extending its control to new customers through the Time Warner investment. This strategy stands in sharp contrast to those of other RHCs who are prepared to concede large portions of the traditional business in favor of developing revenues in faster growing markets outside their traditional regions.

We think that many investors still believe the most important factor driving the share price may be the Company's ability to continue to pay or grow its dividend. The ability to pay or grow the dividend is likely to depend on three factors:

- how well the Company's strategy controls market share and income erosion as new competitors enter the market;
- the rate at which the networks must be upgraded for new services in anticipation of new competition; and
- the expectations management has created in the minds of investors about dividend growth and other competitive factors.

We believe that protection of the existing customer base is important for several reasons.

- All Local Exchange Carriers (LECs), including U S WEST, face loss of traditional customers as new competitors capture market share and drive down unit prices.
- It will be difficult for the LECs to cut costs fast enough to cope fully with this revenue erosion.
- New revenue streams will have to be developed from new services with high growth potential such as PCS and video-to-the-home to maintain network profitability and growth.
- By retaining as many existing customers as possible, an RHC can see its efforts to cut costs and develop new revenues result in revenue and cash flow growth instead of stagnating earnings or even net losses.
- The profits generated from ventures outside the traditional service area are not likely to grow fast enough to offset this erosion of the traditional income base and do nothing to stop it, as a similar amount of new revenue from the existing market could.

U S WEST is among the best positioned to protect its existing customer base and may experience less traditional revenue erosion than others because:



- U S WEST is rapidly developing a marketing-oriented management culture focused on customer retention. In the past as industries have undergone rapid structural changes, often management focus and execution has been the single most important factor to success.
- The Company is aggressively reengineering its network to reduce costs and improve service which could offset inevitable market share losses, and allow new revenue opportunities to accelerate revenue and earnings growth instead of just replace lost revenue.
- The Time Warner investment provides the Company with access to content (a key to highly profitable video services to the home in its traditional markets) and positions U S WEST as a national LEC for the future.

We think that U S WEST may be in a position to rebuild its networks over a longer period of time than are the other RHCs, because--

- Its operating territory is less densely populated than most other RHCs, which will make it more costly and time consuming for competition to overbuild.
- Cable companies that are likely new competitors have about five points lower current penetration of U S WEST's households than do other RHCs.
- Regulators in U S WEST's territory appear to be taking a more cautious approach to opening markets to new local exchange competition than in other states.

U S WEST has publicly adopted the most pessimistic view of the future industry environment, and, we believe, appears to be guiding investors to very low dividend growth expectations.

Despite these advantages, U S WEST stock is attractively valued compared to those of the other large RHCs (selling at comparable dividend yields and earnings and cash flow multiples) and to those of other less well-positioned LECs.

## VALUATION

We expect U S WEST shares to outperform the market as management leverages cost control, customer retention, and development of new revenue streams into revenue and cash flow growth in excess of those of other RHCs. At the same time multiples are likely to expand in response to surprisingly good financial results and a growing proportion of higher-multiple business such as video services to the home and PCS in the revenue mix over the next 5-10 years. We believe that U S WEST's

management has a superior strategy to achieve such results and if so, its stock should sell at a premium to those of the other RHCs instead of parity as it does today. (See Figures 3 & 4).

Changing regulations, technology, and customer preferences create major uncertainties about the future shape of the Company and the other RHCs; however, it is possible to explore how changing multiples, market share, and business mix might interact in a few representative scenarios.

Customer retention could be the most important of these factors because--

- effective customer retention
- relieves pressure on margins and
- provides a broader base into which new services can be sold.

We expect U S WEST to lose 20-40% of its current customer base to new competitors such as cable, PCS, and CAP's. Management would like to hold its losses to the low end of this range and is implementing an aggressive strategy to increase customer satisfaction through quality improvement throughout the organization. At the same time, it is also implementing an aggressive strategy to sell PCS and video services to these customers.

We have attempted to value the Company's current business under three scenarios (see Figure 5):

- Scenario 1 - retain 80% of customers
- Scenario 2 - retain 70% of customers
- Scenario 3 - retain 60% of customers

All scenarios assume that 60% of remaining subs buy PCS services and 70% buy video service by the end of the decade. Conversely, these scenarios also imply a loss of nearly 80% of the traditional wireline business if new services such as PCS and video are not introduced because customers will want these services and will buy them from someone else if they cannot buy them from the Company.

The multiples used to value the cash flows in each of these scenarios are also worthy of discussion. The RBOCs are currently valued at 4-5 times EBITDA cash flow while cable and cellular companies are valued at 10-20 times EBITDA. Given the convergence of RBOC dividend yields with intermediate Treasury Bond yields over the last few years, we believe that current RBOC multiples are below normal as investors anticipate potential deteriorating results in the future. We expect multiples to improve over time as these uncertainties are resolved. We have also used multiples typical for cable and cellular in valuing the video and PCS revenue and cash flow streams.

These scenarios highlight the importance of developing new revenues and cash flow from PCS and video services. If those services are widely accepted, even with a 40% loss of traditional market share, investors could expect a total return in the mid teens over the balance of the decade, and if share loss can be held down, returns of nearly 20% are possible.

Figure 3

		U S WEST, INC. Comparative Valuation Tables					
		9/28/93 Price	Cal. 1993E Div.P/S	Cal. 1993E Yield	Cal. 1993E EPS (1)	Cal. 1993E P/E Ratio	Cal. 1993E EBITD Mult.
Ameritech	AIT	\$87.38	\$3.68	4.2%	\$5.28	16.6	6.2
Bell Atlantic	BEL	\$63.25	\$2.68	4.2%	\$3.45	18.3	6.4
BellSouth	BLS	\$61.00	\$2.76	4.5%	\$3.57	17.1	5.7
NYNEX	NYN	\$46.88	\$2.36	5.0%	\$3.34	14.0	5.0
Pacific Telesis	PAC	\$54.63	\$2.18	4.0%	\$2.94	18.6	6.8
Southwestern Bell	SBC	\$43.38	\$1.51	3.5%	\$2.39	18.2	7.3
US West	USW	\$48.63	\$2.14	4.4%	\$2.94	16.5	6.1
GTE	GTE	\$38.88	\$1.88	4.8%	\$2.17	17.9	6.4

Note 1: Excludes Extraordinary Items. & One-time Adj.

Source: Alex. Brown & Sons

Figure 4

		U S WEST, INC. Comparative Valuation Tables			
		Cal. 1993E Debt Lever.	Cal. 1993E ROE	Cal. 1993E Div. Payout	Cal. 1993E IGR (2)
Ameritech	AIT	0.377	19.6%	69.7%	5.9%
Bell Atlantic	BEL	0.472	18.7%	77.7%	4.2%
BellSouth	BLS	0.334	12.6%	77.4%	2.9%
NYNEX	NYN	0.412	13.9%	70.7%	4.1%
Pacific Telesis	PAC	0.385	14.3%	74.0%	3.7%
Southwestern Bell	SBC	0.367	15.0%	63.3%	5.5%
U S WEST	USW	0.439	14.4%	72.7%	3.9%
GTE	GTE	0.624	20.3%	86.5%	2.7%

Note 1: Excludes Extraordinary Items. & One-time Adj.

Note 2: Implied Growth Rate = Return on Equity (ROE) x (1 - Dividend Payout)

Source: Alex. Brown & Sons

Figure 5

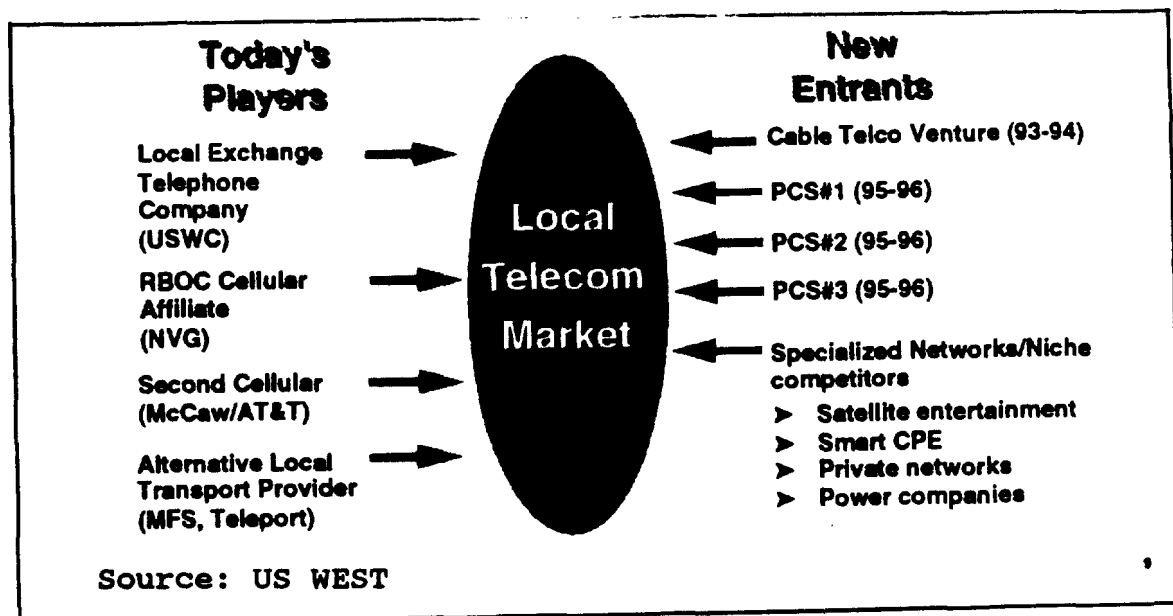
U S WEST, INC. Valuation Comparison (in millions, except per share amounts & ratios)							
	Est. Subs.	Est. Rev./ Sub./Month	Est. Annual Revenue	EBITDA Margin	Annual EBITDA	EBITDA Mark. Mult.	Est. Market Value
(Note 1)							
<b>Current Business Composition including expected Time Warner Dilution:</b>							
Traditional Wireline	12.8	\$51.70	\$7,941.8	43.0%	\$3,415.0	5 x	\$17,074.9
PCS	0.5	\$74.88	\$437.8	25.0%	\$109.5	20 x	\$2,189.0
Video Services	0.0	NM	\$0.0	0.0%	\$0.0	9 x	\$0.0
Other	0.0	NM	\$1,906.2	42.3%	\$805.6	3 x	\$2,416.7
Time Warner (2)	1.8	\$85.42	\$1,856.6	23.0%	\$427.0	10 x	\$4,270.2
	15.1	\$67.02	\$12,142.4	39.2%	\$4,757.0	5.5 x	\$25,950.8
Less: L.T. Debt & Pref. Stock							(\$5,737.0)
Add: Cash							\$157.0
<b>Estimated Current Share Value</b>							<b>\$46.88</b>
<b>Year 2000 Valuation--Assume 20% Traditional Market Share loss:</b>							
Traditional Wireline	4.9	\$35.00	\$2,044.9	43.0%	\$879.3	5 x	\$4,396.6
PCS	7.3	\$40.00	\$3,505.6	35.0%	\$1,227.0	20 x	\$24,539.0
Video Services	8.5	\$30.00	\$3,067.4	45.0%	\$1,380.3	9 x	\$12,422.9
Other	0.0	NM	\$1,906.2	42.3%	\$805.6	3 x	\$2,416.7
Time Warner (2 & 3)	6.0	\$70.00	\$5,008.0	23.0%	\$1,151.8	10 x	\$11,518.3
	18.1	\$71.38	\$15,532.0	35.1%	\$5,444.0	10.2 x	\$55,293.6
Less: L.T. Debt & Pref. Stock							(\$6,000.0)
Add: Cash							\$150.0
<b>Est. Future Share Price</b>							<b>\$113.79</b>
<b>Est. Future Share Value equals annual share appreciation of</b>							<b>13.5%</b>
<b>Year 2000 Valuation--Assume 30% Traditional Market Share loss:</b>							
Traditional Wireline	4.3	\$35.00	\$1,789.3	43.0%	\$769.4	5 x	\$3,847.0
PCS	6.4	\$40.00	\$3,067.4	35.0%	\$1,073.6	20 x	\$21,471.7
Video Services	7.5	\$30.00	\$2,684.0	45.0%	\$1,207.8	9 x	\$10,870.0
Other	0.0	NM	\$1,906.2	42.3%	\$805.6	3 x	\$2,416.7
Time Warner (2 & 3)	6.0	\$70.00	\$5,008.0	23.0%	\$1,151.8	10 x	\$11,518.3
	16.6	\$72.51	\$14,454.8	34.6%	\$5,008.2	10.0 x	\$50,123.7
Less: L.T. Debt & Pref. Stock							(\$6,000.0)
Add: Cash							\$150.0
<b>Est. Future Share Price</b>							<b>\$101.90</b>
<b>Est. Future Share Value equals annual share appreciation of</b>							<b>11.7%</b>
<b>Year 2000 Valuation--Assume 40% Traditional Market Share loss:</b>							
Traditional Wireline	3.7	\$35.00	\$1,533.7	43.0%	\$659.5	5 x	\$3,297.4
PCS	5.5	\$40.00	\$2,629.2	35.0%	\$920.2	20 x	\$18,404.3
Video Services	6.4	\$30.00	\$2,300.5	45.0%	\$1,035.2	9 x	\$9,317.2
Other	0.0	NM	\$1,906.2	42.3%	\$805.6	3 x	\$2,416.7
Time Warner (2 & 3)	6.0	\$70.00	\$5,008.0	23.0%	\$1,151.8	10 x	\$11,518.3
	15.1	\$73.87	\$13,377.6	34.2%	\$4,572.3	9.8 x	\$44,953.9
Less: L.T. Debt & Pref. Stock							(\$6,000.0)
Add: Cash							\$150.0
<b>Est. Future Share Price</b>							<b>\$90.00</b>
<b>Est. Future Share Value equals annual share appreciation of</b>							<b>9.8%</b>
Note 1 - Valuation Multiples are based on estimates of comparable companies.							
Note 2 - Time Warner Amounts are weighted by U S WEST's pro-rata 25.51% estimated ownership.							
Note 3 - Model assumes that Time Warner/U S WEST partnership is able to capture 30% market share out-of-region.							
Source: Alex. Brown & Sons							

## REVENUE RETENTION AND GROWTH STRATEGIES

Defending traditional revenues and developing new sources of revenue on the core network are a strategic necessity if LECs are to continue paying dividends in the face of new competition. U S WEST has a differentiated management focus that we believe may be allowing it to cope more successfully with increasing competition over the coming decade than will its peer group. In our opinion, U S WEST has the most pessimistic view of any of the RHCs about how intense competition in the local loop is likely to become. We share this view. Management believes that by the year 2000 it will face multiple competitors in its home region:

- two interactive broadband networks into each home;
- customer access to three new narrowband wireless competitors in addition to two existing cellular providers; and
- a broad assortment of nonfacilities-based niche service providers (see Figure 6).

Figure 6



On the other hand, despite being better prepared for more vigorous competition, U S WEST may have more time to adapt to new competition--a point we will expand on later in our report--than do its peers. U S WEST is pursuing three revenue-retention strategies that we believe are particularly important.

- (1) Home market customer retention versus outside revenue development. Management believes customer retention in its home territory is its first priority. We believe the home territory is particularly important because, in a highly competitive market, efficient network loading and density is critical for maintaining cost efficiency and protecting cash flows for capital expenditures and dividends.

Based on its success in the U.K. where it offers both CATV and telephony in competition with British Telecom, the Company believes it could well lose 20% market share to a new entrant in its home region, despite its best efforts (see Figure 9). Unlike U S WEST, some LECs seem willing to cede market share on wired networks in their home regions to pursue higher growth opportunities, such as international, cellular and/or CATV, elsewhere. Focusing on revenue replacement at the expense of customer retention may not produce superior investment returns because LECs' out-of-market revenues may not have the same profit impact as new home market revenues.

U S WEST's aggressive deployment of its Full Service, broadband interactive Network (BBN) in its region and its plans to offer wireless PCS services on its cellular spectrum are both a defensive strategy to retain customers on its network and a strategy to develop new revenues. As new competition emerges, market-share losses and price erosion are inevitable. Regulators may also exacerbate this process by restricting the competitive responses allowed for the incumbent LEC until it has lost perhaps 15-20% of its market share, similar to what AT&T's experience was in long distance. Those carriers, such as U S WEST, that are rapidly moving forward with broadband deployment and PCS are likely to be better positioned to retain customers on their network and add new revenue streams to replace revenues lost to competitors. We discuss U S WEST's BBN and PCS deployment in more detail later in our report.

- (2) Residential Versus Business Focus. U S WEST believes residential customers are a very important market segment. Its proposed broadband network should provide low-cost, high-speed capabilities to its business customers and allow U S WEST to be cost and service competitive with Competitive Access Providers (CAPs) and any new entrants. On the other hand, we believe the BBN is primarily designed to provide mass-market, consumer-oriented

- information services,
- wired and wireless communications, and
- entertainment.

U S WEST's residential focus appears to be an important differentiation from some RHCs that seem primarily focused on competing for business customers and other RHCs that have informally questioned whether residential is even a profitable business segment. We believe U S WEST's residential focus is a superior long-term strategy.

In a highly competitive environment, a primary focus on residential consumers may generate superior returns because of the following.

- The consumer markets are likely to be less hotly contested, particularly in the less densely populated western states. The RHCs are already losing market share for business private and leased lines to CAPs and we suspect there is likely to always be more intense competition for business customers. For example, U S WEST/Time Warner expect the first competitive, out-of-region service on the BBN to be CAP services to big businesses. Regulation in most states is already supportive of business competition, and services to large businesses are currently the easiest markets to enter.
  - Cable serves a smaller percentage of U S WEST households than those of other RBOCs.
  - The residential market for consumer entertainment, communications and information services may be 2.5 times larger than the business market in the U.S.
  - Residential consumers may prove to be less price sensitive than business customers, which could allow U S WEST to earn higher margins on residential services in a competitive environment.
  - Competitors for residential customers may face higher capital entry barriers in U S WEST's relatively sparsely populated territory.
- (3) Retailer Versus Wholesaler. U S WEST intends to focus on being a packager and retailer of local access services. This strategy contrasts sharply with those of some of the other RBOCs, which are promoting a "network of networks" strategy, in which they may be willing to function primarily as a wholesaler of services to other access carriers.
- In other highly competitive markets, retailers appear to have the opportunity to earn differentiated returns on investment by adding value, while wholesalers often do not.

- Because of the higher initial network investment, retail Local Access services may attract fewer competitors because other potential markets are easier to enter, particularly long distance and services to large businesses. We will elaborate on some implications of this later in our report.

## **U S WEST/TIME WARNER INVESTMENT**

U S WEST has made an investment in Time Warner Entertainment that we believe places it in a better position than its peers to add new revenue streams in its home market and to penetrate attractive markets outside its traditional territory. The \$2.5 billion investment (see Figure 7) is likely to dilute earnings over the next 4-5 years; however, management expects the Time Warner investment to begin positively contributing to earnings around 1996. Despite the near-term dilution, we believe the Time Warner investment is a significant positive strategic investment for several reasons.

- (1) U S WEST is assured access to, and can share in the profits of, Time Warner's vast array of proprietary content for U S WEST's BBN applications in and out of its current territory. As access competition increases, along with the capacity of competing networks, the value of desirable differentiated content such as Time Warner's is likely to rise and provide a long-term source of incremental total return to investors.
- (2) Time Warner provides U S WEST with access to new markets that are highly complementary to U S WEST's. There is very little overlap between customers in U S WEST's home region and Time Warner's networks out of region (Figure 8). U S WEST plans to have the BBN (including PCS services) deployed in most of Time Warner's markets in five years. We believe U S WEST's rapid build-out of the Time Warner CATV markets is a key driver of U S WEST's long-term strategy and is likely to provide greater value to shareholders over time compared to what the rewards will be from RHCs that may be investing in other CATV service providers because of the following.
  - These footholds in key domestic markets could complement U S WEST's overseas investments when the Company eventually is permitted to offer long distance services.
  - By rapidly building out the BBN in Time Warner's markets, U S WEST may gain an advantage in time to market. Currently, only Ameritech and Bell Atlantic appear to be planning rapid broadband network build-outs, and several of the RBOCs appear ill-prepared to face LEC competition as quickly as Time Warner/U S WEST appear ready to provide it.



Based on U S WEST's experience in the U.K., an initial new entrant may be able to take 15-20% market share with relative ease, but later entrants or attempts by incumbents to win back lost customers are likely to be more difficult and expensive.

- By rapidly putting competitive pressure out-of-region, it is possible that U S WEST might forestall some competition in its region if other RBOCs are forced to defend market share losses at the expense of their own out-of-region investment plans.
- (3) U S WEST/Time Warner may be able to develop a truly national identity and brand name. We believe this is important to our recommendation because investors in the past have been willing to pay higher multiples for market leadership. Also, national brand identity may be particularly important in maintaining a consumer/residential focus. AT&T/McCaw apparently believe so and have stated this to be a specific goal of their potential merger.

Figure 7

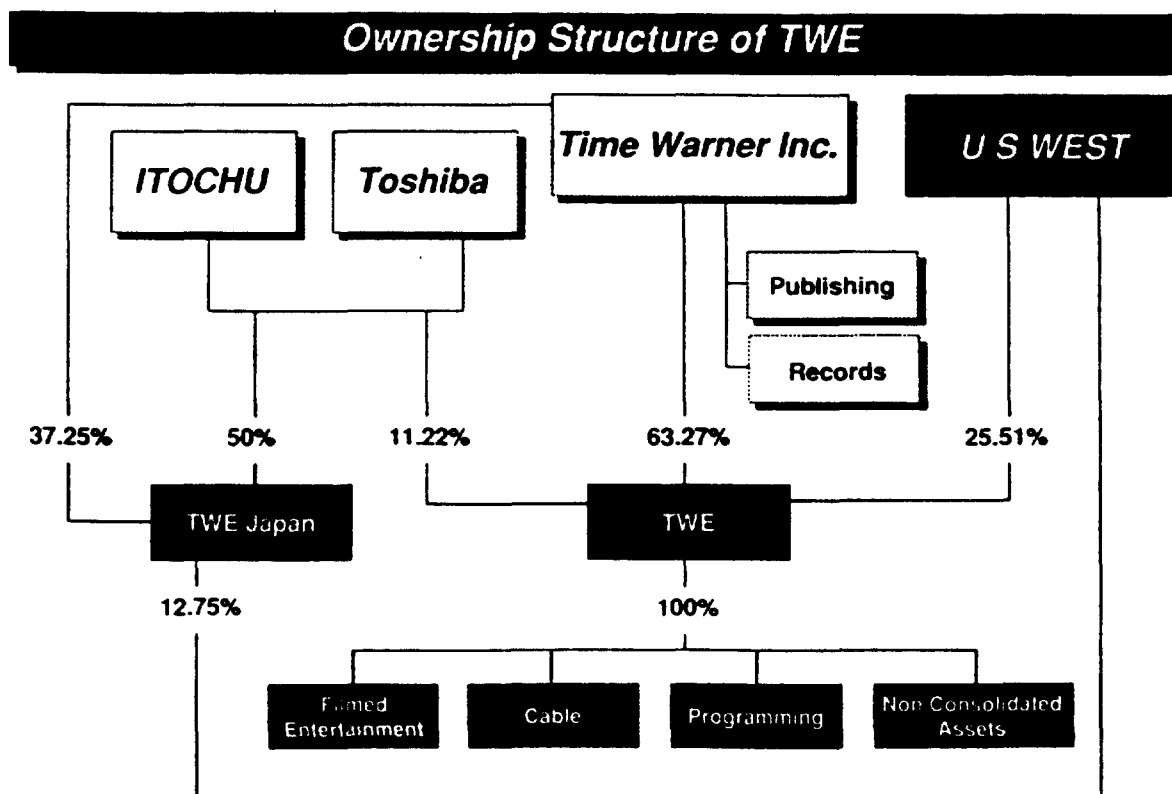
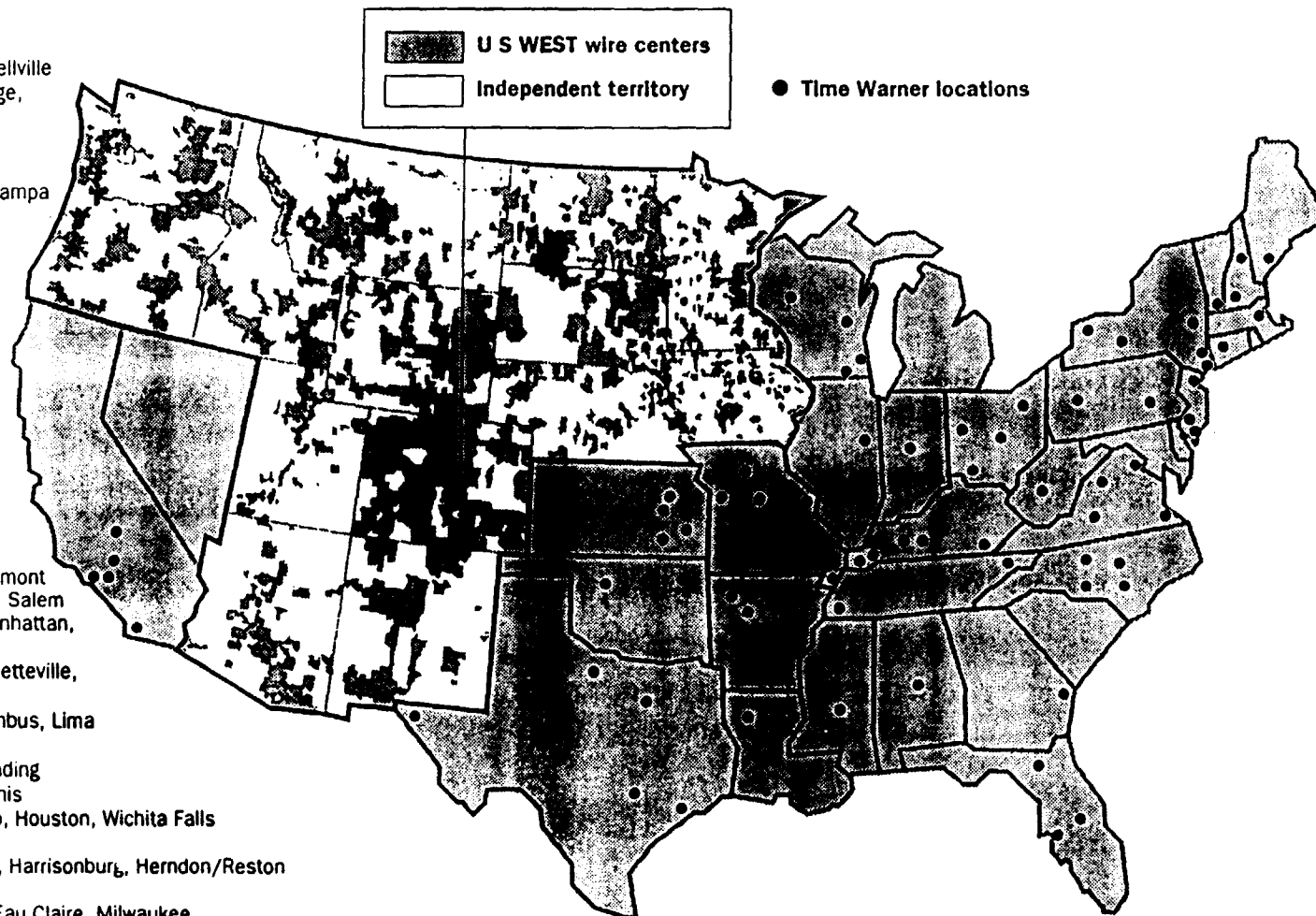


Figure 8

# U S WEST and Time Warner networks

- Alabama: Birmingham
- Arkansas: Fayetteville, Russellville
- California: Bakersfield, Orange, San Diego, South Pasadena, Torrance
- Connecticut: Litchfield
- Florida: Lake City, Orlando, Tampa
- Georgia: Savannah
- Illinois: Champaign
- Indiana: Indianapolis
- Kansas: Chanute, Emporia, Independence, Parsons
- Kentucky: Beaver Dam, Madisonville, Mayfield, Murray, Manchester
- Louisiana: Shreveport
- Maine: Portland
- Massachusetts: Boston
- Mississippi: Jackson
- Missouri: Chillicothe, Kansas City, Kennett, Marshall, St. Louis
- New Hampshire: Berlin, Claremont
- New Jersey: Avalon, Mahwah, Salem
- New York: Albany, Ithaca, Manhattan, Rochester, Upper Manhattan
- North Carolina: Charlotte, Fayetteville, Greensboro, Raleigh
- Ohio: Akron, Cincinnati, Columbus, Lima
- Oklahoma: Woodward
- Pennsylvania: Pittsburgh, Reading
- Tennessee: Kingsport, Memphis
- Texas: Austin, Dallas, El Paso, Houston, Wichita Falls
- Vermont: Brattleboro
- Virginia: Lynchburg, Hampton, Harrisonburg, Herndon/Reston
- West Virginia: Charleston
- Wisconsin: Appleton, Beloit, Eau Claire, Milwaukee



Source: US WEST

U S WEST, Inc.  
September 28, 1993

Alex. Brown & Sons  
Incorporated

### Complementary International Investments

As have most of the RHCs, U S WEST has made significant foreign investment as a way of growing revenues. However, we believe the strategic focus of U S WEST's international investments may be more likely to add to positive cash flows over time at lower levels of risk than will some of those of the other RHCs. U S WEST is primarily focused on the U.K. because--

- The U.K. has a highly concentrated population that makes it easy to access, less expensive to build out and allows the Company to focus on network density (see Figure 9).
- U S WEST is primarily focusing on PCS services and CATV/telephony in the U.K., which allows it a unique opportunity to leverage the experience and learning curve to its U.S. in-region and out-of-region strategy.
- The U.K. is potentially one of the most lucrative markets worldwide because of its pro-competitive regulatory structure which make it is easy to access now.

The Company also has wireless investments in Hungary, Czech Republic, Slovakia, and Russia; and CATV investments in France, Hungary, Sweden and Norway. However, these investments are marginal compared to its U.K. commitment.

In contrast to U S WEST's international strategy, several of the RBOCs appear more focused on broadly diversified international investments as a way to add incremental smaller, fast-growing markets. We are concerned that many of these investments may be cash flow negative for several years at a time when the RBOCs may be losing market share at home; and we see little complementary leverage between many of these various international investments. As world communications markets become increasingly competitive over the next decade, we believe competitors such as U S WEST that focus on density and leverage of existing and complementary networks are likely to be more successful than those that focus on a diversified family of far-flung investments.

Figure 9

U S WEST, INC. U.K. Broadband Network Summary		
<i>For All Service Providers As of April 1, 1993:</i>	<i># of POPS</i>	<i>% of Total</i>
Total TV Homes in the U.K.	22,800,000	100.0%
Homes in Broadband Access Area	14,900,000	65.4%
Total Homes passed with CATV	2,962,364	13.0%
<i>% passed in Access Area</i>	19.9%	
CATV homes passed with Broadband (BB)	2,127,895	9.3%
<i>% CATV homes passed with BB</i>	71.8%	
Total Broadband Subscribers	458,961	2.0%
<i>% Broadband Penetration</i>	21.6%	
Broadband Subscribers with Tele. Service	143,660	0.6%
<i>% Telephony Penetration</i>	31.3%	

Source: New Media Markets

### **Late Entry Into Long Distance**

U S WEST appears to have tried to avoid alienating the large interchange carriers (IXCs) while positioning itself better than any other RHC to benefit from a relaxation of the long distance prohibition through its Time Warner investment. With the notable exception of U S WEST and Ameritech, all of the RHCs seem to be aggressively wanting entry into inter-LATA service (which they are currently prohibited from offering under the Modified Final Judgment [MFJ]) which could be an important source of future revenues, and most have requested the FCC and the courts for a relaxation of the MFJ restriction against inter-LATA entry. We believe U S WEST's reluctance to strongly push for early inter-LATA entry could leave it better positioned strategically over time, while it builds out a national infrastructure with Time Warner.

Inter-LATA long distance is by far the most competitive of the current telephony services and is dominated by AT&T, MCI and Sprint, which are large, well-capitalized competitors with nearly a decade of experience in competitive markets. Despite this, most of the RHCs appear to want rapid entry into long distance. We believe that within the prospective highly competitive telephony markets, companies will tend to cluster around core competencies in either local access, transport or niche services. U S WEST is generally supportive of a relaxation of the Inter-LATA prohibition, but appears to be focused on its core competency in local access. This long distance strategy may add differential share value in the near term because of the following.

- We believe by focusing on local access, management is more likely to be successful over the next several years than those that rapidly enter the highly competitive inter-LATA market, which could drain talent and resources needed to defend local access market share.
- Access charges paid by IXCs to the LECs may be among the most profitable and sensitive to competition of the RHC revenue segments. U S WEST is slightly more vulnerable because it has among the highest percentage of revenues coming from access charges (see Figure 10). Currently, the IXCs are among U S WEST's best customers and it appears the Company does not want to be viewed as a near-term competitor, which could cause the IXCs to more aggressively look for alternatives to deliver traffic in U S WEST's region.
- Even though we do not expect U S WEST to aggressively compete for inter-LATA long distance initially, over time, U S WEST is better situated than any of the RHCs to benefit from a lifting of the inter-LATA restriction because it is likely to have a nationwide U S WEST/Time Warner network capable of efficiently loading an IXC network with end-to-end traffic within the next five years or so.

Figure 10

U S WEST, INC. 1992 Domestic Telephone Revenues (dollars in millions)			
		Total Revenues	% Access
GTE	GTE	\$10,217	34%
U S WEST	USW	\$8,263	33%
Southwestern Bell	SBC	\$7,759	33%
BellSouth	BLS	\$12,410	30%
NYNEX	NYN	\$11,549	29%
Pacific Telesis	PAC	\$7,778	28%
Ameritech	AIT	\$9,806	27%
Bell Atlantic	BEL	\$11,222	27%

Source: Coyle Research

### Geographic Region As A Barrier To Entry

Management seems to expect a greater degree of competition to arise more quickly than have any of the other RHCs stated publicly. We have summarized our view of U S WEST's strategy for revenue retention and revenue replacement above. However, while management expects the greatest degree of industry competition of any of the other RHCs, we believe U S WEST has the best protected geographical region with which to fend off new competition (Figure 8).

- In the already-highly-competitive market for business leased and private line services, U S WEST faces fewer competitors (CAPs) than does any other RHC. Southwestern Bell, which has nearly the same number of total access lines, has almost twice as many CAPs operating in its region (Figure 11).
- U S WEST has a much lower density of access lines per square mile than do most of the RBOCs, which makes it more expensive for a new competitor to enter its markets.
- U S WEST has a slightly higher percentage of residential customers than do most of the other RHCs, which we believe makes U S WEST incrementally less attractive to new entrants because we expect more competition in markets with higher percentages of business users (Figure 12).

Figure 11

U S WEST, INC. Competitive Access Providers (CAPs) (access lines in millions)			
		Access Lines	# of CAP's Licenced
U S WEST	USW	12.8	6
Pacific Telesis	PAC	14.1	7
NYNEX	NYN	15.0	10
Southwestern Bell	SBC	12.2	11
BellSouth	BLS	18.1	14
Bell Atlantic	BEL	17.5	15
Ameritech	AIT	16.3	16
GTE	GTE	13.2	17

Source: Telecom Publishing Group & GTE

Figure 12

U S WEST, INC. 1992 Domestic Switched Access Lines (in millions)			
		Access Lines	% Residential
GTE	GTE	13.2	76%
U S WEST	USW	12.8	74%
BellSouth	BLS	18.1	73%
Southwestern Bell	SBC	12.2	72%
NYNEX	NYN	15.0	71%
Ameritech	AIT	16.3	69%
Bell Atlantic	BEL	17.5	67%
Pacific Telesis	PAC	14.1	65%

Source: Coyle Research

### The Full Service Broadband Network (BBN)

U S WEST is among the most aggressive companies deploying new, interactive broadband networks capable of delivering interactive video and telephony services (Figure 14), including PCS. We believe those LECs that rapidly deploy these types of new networks are likely to outperform the group over time because of the following.

- Those like U S WEST, Ameritech and Bell Atlantic, who are planning rapid deployment of new networks and have already built it into their capital spending plans, are in a better position to protect the dividend than those that may be forced by competition to speed up capital spending above expectations. While we doubt any of the RHCs are likely to cut or eliminate the dividend in the next 2-3 years, we think cuts are a possibility over the next decade; and, even if dividends are not cut or eliminated, some carriers may be forced to borrow to pay the dividend or raise additional equity, which is likely to cause share prices to underperform (see Figure 13).
- We expect a significant portion of narrow-band telephony traffic to flow to the most efficient broadband service providers over time. By deploying broadband networks rapidly, U S WEST could make entry by new competitors more expensive because they will be forced to meet U S WEST's price and service offerings. U S WEST is concerned about new entrants because, by offering both CATV and telephony on its U.K. network, U S WEST found that about 20% of its CATV subscribers take telephone service even

when price does not appear to be an issue (see Figure 9); U S WEST believes a similar result may occur in the U.S.

- The BBN opens up a new range of revenue opportunities because the BBN could truly consolidate the markets for:
  - information - \$50 billion;
  - communications - \$200 billion; and
  - entertainment - \$150 billion.

Figure 13

<b>U S WEST, INC.</b> <b>Comparison of Estimated Network Spending Requirements</b> <i>(in millions)</i>						
		Cal. 1993E FCF (1,2)	Cal. 1993E Cap. Ex.	Cal. 1993E Gross Div.	Cal. 1993E EBITDA (2)	Cal. 1993E Inc. Cap. Ex. (3)
Ameritech	AIT	\$183	\$2,350	\$999	\$4,521	\$522
Bell Atlantic	BEL	\$433	\$2,500	\$1,165	\$5,350	\$1,098
BellSouth	BLS	\$253	\$3,350	\$1,382	\$6,520	\$1,440
NYNEX	NYN	\$303	\$2,750	\$973	\$5,271	\$477
Pacific Telesis	PAC	\$113	\$2,075	\$892	\$4,075	\$694
Southwestern Bell	SBC	\$276	\$2,150	\$906	\$4,260	\$833
U S WEST	USW	\$59	\$2,225	\$889	\$4,330	\$416
GTE	GTE	\$51	\$3,800	\$1,774	\$8,250	\$1,272

*Note 1: Free Cash Flow = Net Income + Depreciation & Amortization - Net Cap. Exp. - Dividends*

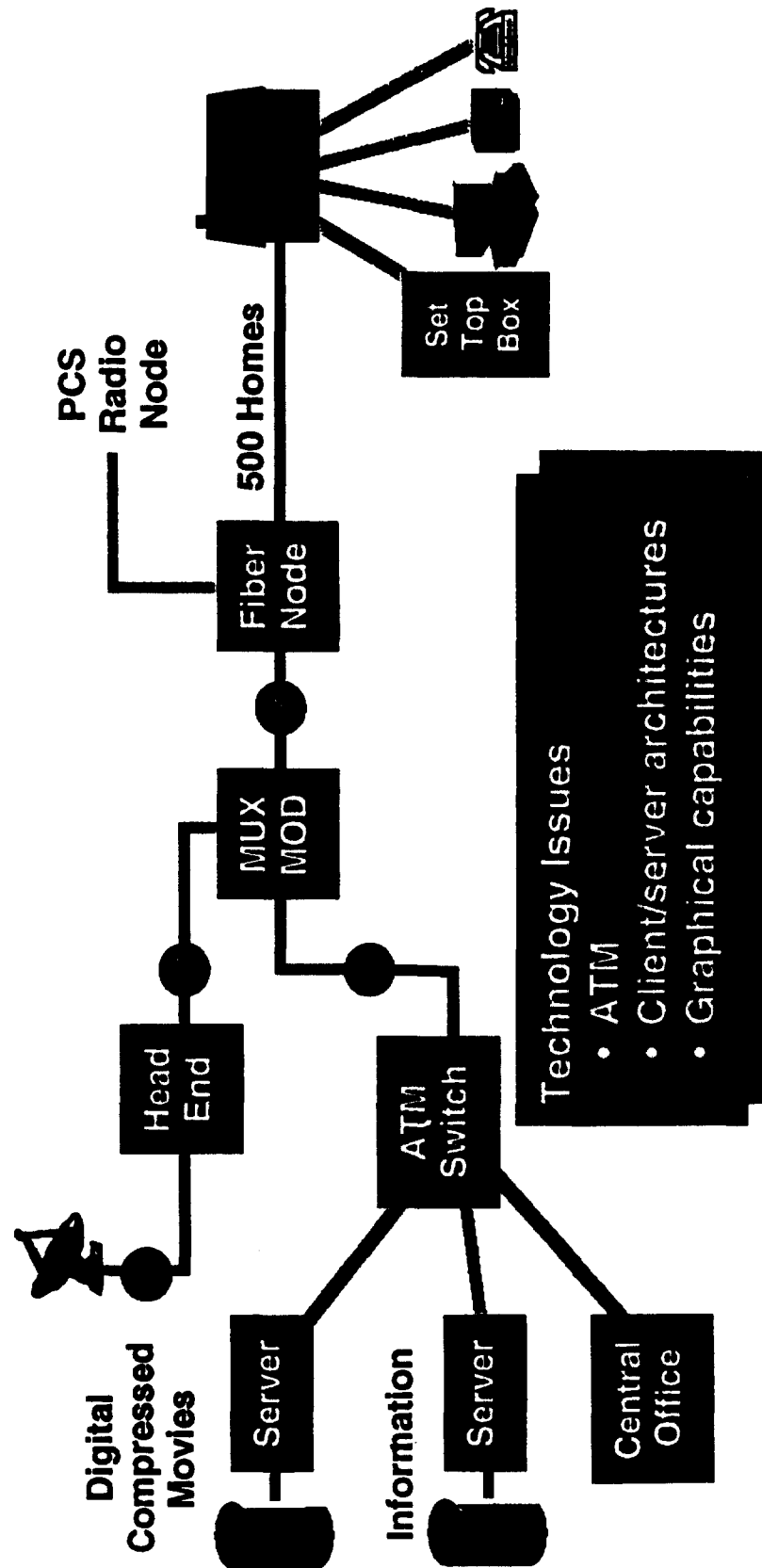
*Note 2: Excludes Extraordinary Items & One-time Adj.*

*Note 7: Estimated Incremental Capital Expenditures over current spending plans needed to offer interactive broadband capability to 30% of households by 1998.*

*Source: Alex. Brown & Sons*

Figure 14

# Full Service Network Functional Description





### Personal Communication Services (PCS)

We believe U S WEST is one of only a few RHCs that perceive the true threat of PCS to the traditional LEC and cellular business. Some industry estimates predict as high as 60% wireless penetration of U.S. access lines by the year 2000, which would put a large portion of the traditional LEC and cellular business at risk. Those LEC service providers that aggressively plan to offer PCS both in their existing cellular spectrum and in new licensed spectrum are likely to be better positioned than those that view PCS as a niche application, complementary, but not a threat, to the traditional wireline and cellular business.

- U S WEST believes that as much as 50% of its traditional and prospective cellular subscriber base is susceptible to inroads by new PCS providers and has aggressively adopted new technologies such as CDMA to meet the price and performance points of any new service providers, using its existing cellular spectrum.
- U S WEST is planning for aggressive PCS competition for its traditional wired phone business (see Figure 6) by planning to deploy new PCS networks both in-region to protect its existing base and out-of-region on the Time Warner networks to capture new revenue streams.

We believe PCS is a serious threat to traditional phone company and cellular service provider revenues because it is being driven by the demand for:

- mobility--by consumers;
- alternative access--by IXCs who must pay high access charges to the monopoly LECs;
- competition--by regulators who want to introduce PCS as a way to regulate prices and improve services to consumers; and
- lower cellular air-time charges--by subscribers.

We expect regulators to license two or more new PCS competitors in all U.S. markets over the next few years, and would not be surprised to see the first new PCS providers introducing service by early 1995. The enabling legislation to auction off new PCS spectrum in the 2GHz band is contained in several bills in both Houses of Congress, and we believe there is broad by-partisan support to move this legislation forward.

There has been wide industry debate about what services and price points these new providers will be able to offer. However, we are convinced that, given enough spectrum and using digital technology like CDMA, new service providers can offer PCS services and mobility (including full mobility cellular) at prices that are about 15% over current Plain Old Telephone Service (POTS) rates.